GRUMMAN plane news

Vol. 33, No. 6, Bethpage, N. Y., March 22, 1974

Grumman to use 'windmills' in advanced energy system

If there should be windmills sprouting up on Long Island in coming years, don't be surprised . . . Grumman Aerospace plans to use a semi-rigid airfoil —which resembles a windmill—in the development of an advanced wind generator system as a means of alleviating the nation's dependence on fossil fuels for energy.

Grumman Aerospace announced yesterday that it had obtained exclusive rights and a licensing agreement with Princeton University to use its Sailwing design in the system.

The advantages of the Sailwing, designed by Thomas E. Sweeney, senior research aeronautical engineer in Princeton's Aerospace and Mechanical Sciences Department, lie in its light weight, durability, efficiency and economy. Sweeney started this work on a low priority basis some eight years ago when he and a group of Princeton students began to work on an experimental windfall, a smaller prototype of the present Sailwing. (It's not surprising that Sweeney has a 27-foot sailboat called "Sailwing.")

Minimizes cost

In the past windmills were built by windmill builders, highly skilled artisans who applied their best knowledge to their craft. "In 1966, when we started to build an experimental windmill," says Sweeney, "we thought of applying the modern state of aerodynamic technology to the art. We had just been through a series of very successful experiments with a high performance sailwing on a light airplane —so, in a sense, we had already done our homework."

"Excessive loading" Sweeney explains, "has always been a windmill problem because of the very high drag forces at high wind speeds—windmills always had a tendency to fall down or become damaged in high winds. Yet, we want many rotations of the blades per minute so high wind speeds are desirable. Windpower also increases exponentially with velocity. The energy in a 20-mile-per-hour wind is eight times that in a 10-mile-per-hour wind. We expected that an adaptation of airplane structural technology would minimize this problem. It was clear at the outset that the Sailwing would also minimize the cost, and economy was another of our goals."

The Princeton windmill, including its orange and white candy-striped aluminum mast and its candy-striped 25-foot diameter sailwing motor weighs only 300 pounds. Its light weight, the simplicity of its construction, and its sailwing make it unique.

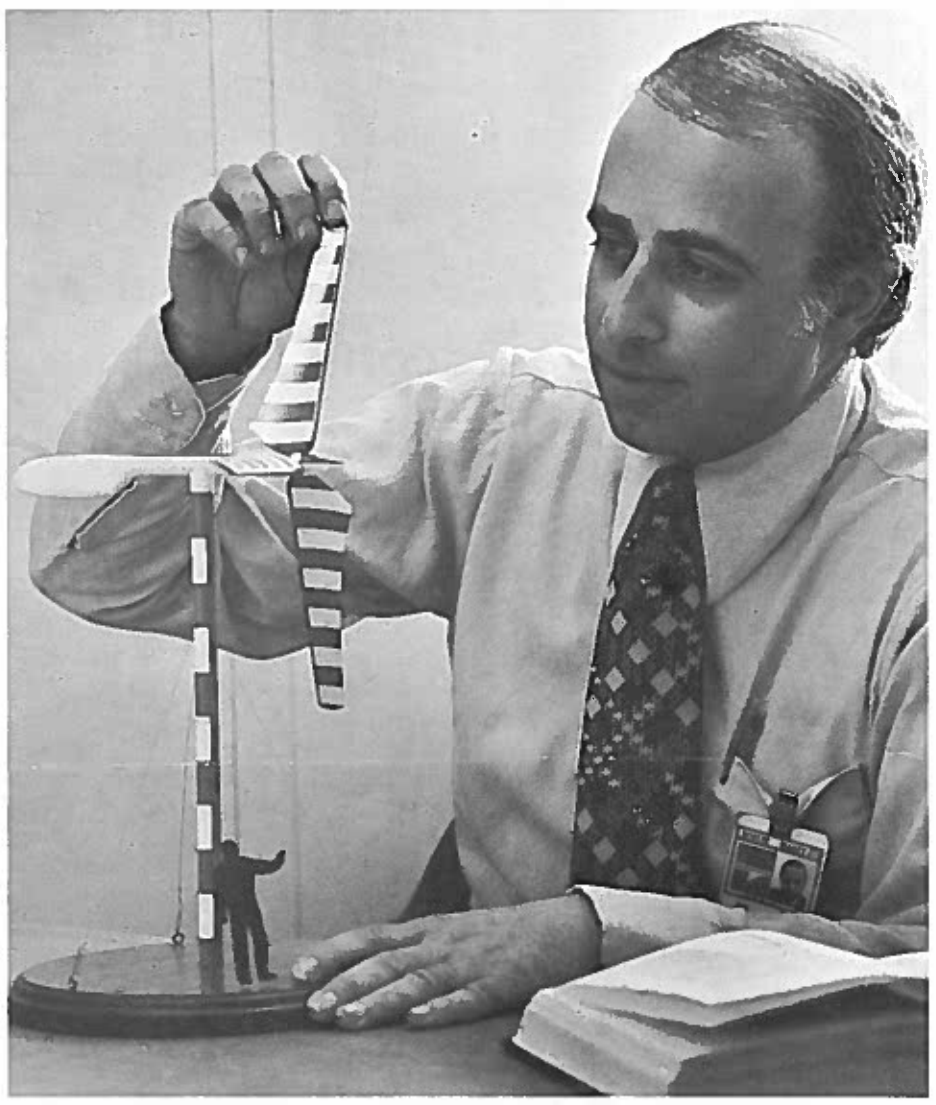
Made of dacron, like the sails of a boat, the wing is designed and constructed so there is no need for ribs, braces or any further supporting structure. When the wind blows, the wing takes on the familiar airfoil curvature; at rest the stretched fabric lies in a flat plane.

Winds key factor

Where the wind blows and how fast will be the key to effective utilization of the Sailwing windmill. One possibility: the Caribbean islands where the trade winds move at a constant 15 miles-per-hour or more, night and day. "It's the one place where you might never need a storage battery—if indeed the battery turns out to be the optimum way to store the battery," says Sweeney.

John Mockovciak of the Energy Systems Group at Grumman estimates that there are many places on Long

(Continued on page 3)



Look of the future? Dr. Bob Madey, manager of research and development for Energy Systems in Grumman Aerospace, examines model of windmill-driven generator system. Madey is directing a team which is building a prototype windmill, based on Princeton University design. (Photo by Marie Trimborn)

Supervisory seminars shine spotlight on safety

For the past few weeks, Supervisory Safety Seminars have been conducted at Plant 39 to encourage a greater awareness in the importance of safety at Grumman Aerospace. Under the Occupational Safety and Health law passed by the Federal Government in 1970, employers are required to provide a safe place of employment; through these seminars, Grumman is encouraging individual managers throughout the company to reverse the upward trend of accidents among employees.

Al Levine of Safety tells some of the aims of the program: "We have always had a safety program at Grumman, but now we want to expand it further. By reaching the supervisor and advising him of his responsibility to promote safety in his work area, a step toward improved safety can be attained. Eventually, we hope that we can reach everyone through the program."

The instructors hope that these seminars will highlight the need to improve operating procedures and the development of safer working conditions. When a person enters the employ of Grumman, they point out, he or she has the right to expect that the company will provide them with a safe and healthy working environment. Grumman, at the same time, has the right to expect each employee to follow established safety rules.

The seminars are held every Tuesday and Thursday in a classroom in Plant 39. A different group of supervisors meets each session and so far over 200 of them have attended the seminars. "The program's goal is to contact supervisors at all levels of management," says instructor Bob Mills, "and not only tell them that it is management's duty to help protect employees, but show them how as well."

Last year numerous employees received back sprains, eye and hand injuries. "Although there are many factors that contributed to these accidents —we hired over 4,000 new people last year—a lot of these accidents could have been prevented," says Levine.

Wendell Bodden, the program administrator from Training and Development, puts it this way: "Accidents

(Continued on Page 3)

Name Hodge Peconic AAP rep

A couple of weeks ago, Vice President George Skurla named Bob Hodge (L) as the Affirmative Action representative for Calverton Operations. According to Skurla's announcement, Hodge will "foster the development and implementation of the affirmative action policies related to . . . Calverton Operations . . . and will monitor their administration for consistency with the AAP objectives of the corporation." Hodge will also assist the various departments at Calverton in formulating and implementing their own goals and objectives to promote the equal employment philosophy of the company.

Bob, a WWII and Korean war vet, is still active in the Naval Air Reserve. He joined Grumman in 1965, served in LM system test engineering, and as assistant spacecraft team leader on Lunar Modules 4, 7, 10, 12, and 13 and while he was associated with Spacecraft Assembly and Test. Hodge is located in Plant 6, Ext. 845.

Turned on to mini-SACE

There's been a new look in support equipment these past couple of months at Whidbey Island, and helping Capt. Art Barie, skipper at the naval base in Washington, get acquainted with the new gear is John Link, Support program manager for Grumman at the site. Earlier this year, the first mini-SACE (Semi-Automatic Checkout Equipment) console was delivered to Whidbey and within eight days it was on-line, helping to test out various systems in the A-6E, EA-6A, EA-6B, and E-2 aircraft.

Mini-SACE, because it is miniaturized, will reduce space required for this type of support equipment by over 50 percent, a substantial aid to harried carrier personnel who must use every possible square inch aboard the big ships. The new equipment also boasts increased reliability—that's possible because of integrated circuits, substantial decreases in test time, elimination of external air condition requirements and external test equipment, among others.

Grumman widens coverage for traveling on business

Since March 1, Grumman employees have been protected under a new and improved travel accident program. The previous plan, says Ed Jacobs, director of Corporate Insurance for Grumman Corporation, provided benefits of up to three times basic annual earnings (minimum of $50,000 and maximum of $250,000) for accidental death and certain dismemberments that occurred as a result of domestic business travel while flying or aboard any watercraft. (Other dismemberment benefits provided one-half the principal sum in accordance with the payment schedule.) In addition, the old plan offered 24-hour all-accident coverage to persons while they were traveling on company business outside the country. For these benefits to be payable, death or dismemberment must have had occurred within 100 days after the date of accident.

24-hour coverage

The new program contains the same benefit payment schedule (minimum of $50,000 and maximum of $250,000), but it also offers employees full 24-hour all-accident coverage for both domestic and foreign business travel, including weekends and at other times during which business isn't conducted. *It is not restricted to aircraft or watercraft accidents.* Business travel, however, applies only when *off* Grumman premises. Coverage commences at the time an employee leaves his or her home or place of work to begin travel, and continues until such time as he or she returns home or to work upon completion of that business. It *does not* apply should business travel be interrupted for approved vacation time. Coverage applies to employees traveling on local company business, too: for example, messengers, vendor visits, seminars or business meetings, etc., as well as during travel away from the local area.

Extend time period

Under the new program, loss occurrence (death or dismemberment) has been extended from 100 days to 365 after the date of the accident, and it provides for the inclusion of a lump-sum Permanent Total Disability benefit. The injured employee will receive the full principal sum if permanent total disability occurs within the 365-day period, continues for a period of 12 consecutive months, and is permanent and total at the end of such period.

Benefits under this improved travel accident program are in addition to other company-paid benefits which may be payable under other existing insurance plans. They are only the *major* provisions of the new plan. Specific details may be obtained from the Insurance, Benefits, and Records Department, Plant 28, or by calling Ed Jacobs, Ext. 2670.

Name new members to suggestion group

Starting March 1, the following are serving the second year of their two-year appointments to the Corporate Suggestion Awards Committee of Grumman Aerospace:

Tom Campo, Chairman, Product Support; Gene Bonan, Systems & Technology; John Kierdorf, Product Manufacturing. Harry Volz of Security and Personnel Services has been appointed to fill an unexpired term of one year.

Four persons have been appointed to two-year terms:

Huwelett (Hugh) Collins, Product Manufacturing; Elizabeth Gardner, Inventory Management; Al Hall, Product Manufacturing; and Joe Kingfield, Quality Control.

The committee works in conjunction with the Motivational Programs Office to select monthly award winners, and to assist in determining the top annual suggestion award winners.

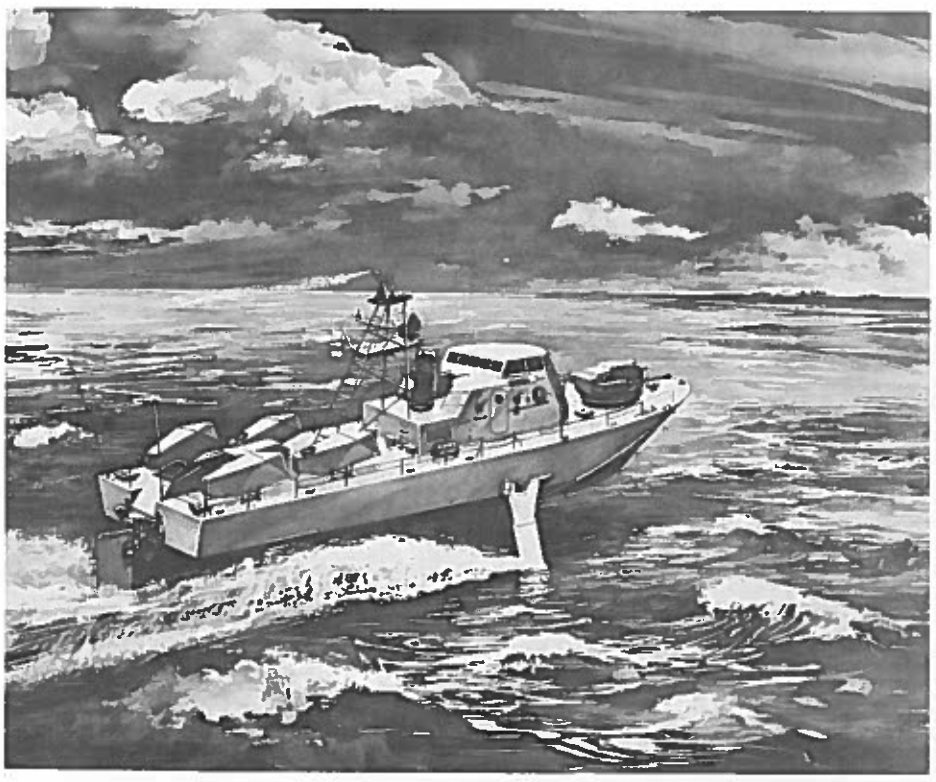
Offer free booklets on canoe activities

Spring may be the time when "a young man's or a young woman's fancy . . . " But it's also the time when a lot of folks start thinking about other kinds of adventure! And off the press just in time for serious summer trip planning is the new expanded Adventure Trip Guide which holds 224 pages of facts about nearly 1,000 outfitters, guides, and organizations specializing in 20 types of outdoor adventure.

Canoeing and mountaineering trips, cattle drives, covered wagon trips, ballooning, soaring and windjamming trips are described. As a guide for all seasons, it also includes ski touring and snow camping. You'll find names, addresses, costs, and tips on making reservations.

The revised, 1974 edition of the Adventure Trip Guide is available at $3.50 from: the publisher - Adventure Guides, Inc., Dept. R, 36 East 57th Street, New York, N. Y. 10022, or your local bookseller.

And while you're in a planning mood, send for Grumman's two *free* booklets: Rent-A-Canoe Directory, listing over 400 canoe liveries in the U.S. and Canada; and Group Camping by Canoe. Write Grumman Boats, Marathon, New York 13803.



Super Flagstaff. **Grumman Aerospace is offering new hydrofoil design, Super Flagstaff, for military applications to countries throughout the free world. (Rendering by Craig Kavafes)**

Offering Super Flagstaff for armed patrol mission

Grumman Aerospace announced last week that it had begun offering its Super Flagstaff hydrofoil design for military applications to countries throughout the free world. The 83.5 ton vessel will provide unprecedented capabilities for open-sea operation, according to Joe Barbetta of Customer Requirements and will be able to carry up to 65,000 pounds of payload over 1,700 nautical miles.

As a high-speed hydrofoil patrol gunboat, the Super Flagstaff will carry a variety of armament, and its ruggedness, operational economy, and ability to provide crew and personnel accommodations make it a likely candidate for long-duration patrol missions.

The Super Flagstaff concept is based on the 67-ton Flagstaff PGH-1, built by Grumman as the first of a new class of U.S. Navy hydrofoil gunboats, and designed to offer an excellent high speed stable gun platform in rough seas. Armed with a 40-mm gunforward, two twin-.50 caliber machine guns amidships, and an aft-mounted 81-mm mortar, the Flagstaff successfully served under Southeast Asia combat conditions while performing interdiction missions. Like the Flagstaff, the Super Flagstaff will be driven by gas-turbine powered propellers.

Grumman Aerospace is a pioneer in the design and construction of large hydrofoil craft. Over the last 20 years Grumman has designed and constructed the 64-ton passenger ferry Dolphin; the 90-ton H.S. Denison, used as a test hydrofoil by the Maritime Administration; and the Flagstaff.

Old approach to new system

(Continued from page 1)

Island where the average annual wind velocity is 12 miles-per-hour. "In these areas," says Mockovciak, "a five-kilowatt system would produce approximately 12,500 kilowatt hours yearly, which is about 15 per cent more than the average Long Island residence requires."

Low-cost, too

Sweeney explains that the highest average winds in this country occur right around New York, but that some places might have 60 mile-per-hour peak winds for five-minute periods, no wind some of the time, and 20 mile-per-hour winds at other times. "In such places," he says, "you would have to determine the most efficient way to carry over the energy from the windy times to the calm times. What's important," he adds, "is that we tested our first prototype Sailwing in gale force winds, freezing rain and heavy snow storms for a whole year and it withstood them all undamaged."

Sweeney ventures a guess that Princeton's experimental 25-foot Sailwing, plus storage and generating system could be produced to sell for between $3,500 and $4,000 . . . which makes it an exceedingly reasonable clean energy source where the wind is dependable. And it's conceivable that bigger, more expensive Sailwing windmills could produce enough energy to supply all of the power for some small windy community.

Sweeney, who remembers seeing windmills dotting the Western plains when he was a small boy, is still impressed by their economy. While he doesn't believe that they are the only solution to the energy problem, like all good sailors, he likes to think of the wind as a friend in need.

plane GRUMMAN news

Published twice a month for the employees of Grumman Corporation, Bethpage, N. Y. 11714, as a function of the Public Affairs Dept., Vice President J. B. Rettaliata, director.

Manager, Internal Communications
Brian Masterson

Managing Editor
Charles Petty

Editorial Assistant
Kathy Housley
Roxanne Aaron

Telephone
Plane News: 3293
Plane News from outside line:
LR 5-3293

Operation safety! **Instructor Bob Mills addresses supervisors and foremen at one of the seminars being sponsored jointly by the Safety and Training departments. These seminars are spotlighting the importance of employee safety at Grumman Aerospace. (Photo by Harry Prodromides)**

Supervisory seminars shine spotlight on safety

(Continued from Page 1)

not only affect the person who gets injured, they can also result in hardships to the employee's family, as well. The company also loses through lost man hours, higher insurance bills, schedule delays, and in many instances, material damage."

"Accident prevention is important to everyone," says Mike Kennedy, a supervisor in Plant 36. "The seminars are informative and have alerted me to a lot of problems in my department. Many times a supervisor may overlook the little problems in his department in order to solve the big ones. The little problems can cause accidents also."

"The seminars are geared to stress the importance of the supervisor keeping a close check on his department to see that each employee is practicing safety habits. Just because an individual has been taught how to perform an operation correctly and safely does not mean that he or she will continue to do so forever," says Levine. "Situations change. We believe that only by frequent observations can a supervisor be sure that the work is being performed properly and safely."

"The seminars aren't a passing thing," says Foreman Al Siani, of Plant 2. "It's just the beginning of an effective safety program. I was surprised at the information I received from the seminars, and I'm going to work toward improving my department."

Don Lewis of Plant 2 management views the seminars as a "positive way of looking at things in the company, and it has also helped foremen to take positive safety steps in their departments."

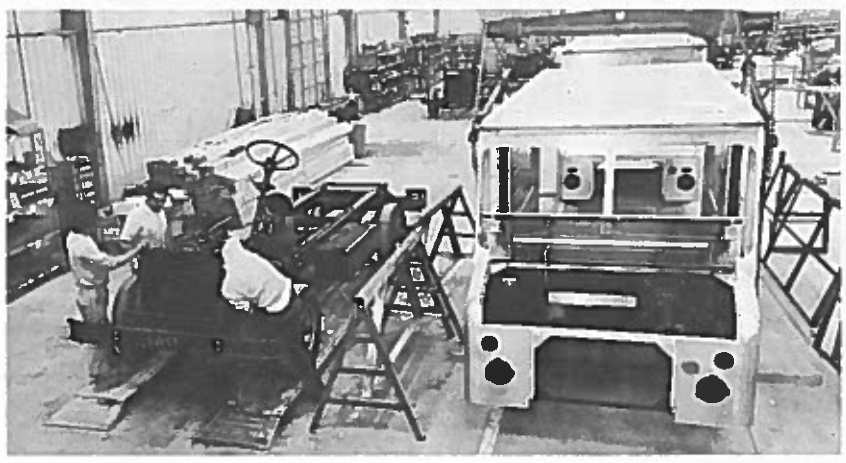
The safety seminar program is being conducted at other facilities of Grumman Aerospace including Stuart, Florida, and will be held at Pt. Mugu, California, too. Al Levine concludes: "The Safety Department would like to see the effort for improved safety become a company campaign among all employees. In that way, there will be fewer accidents at Grumman, and that will not only benefit each Grummanite it 'saves' from injuries, it will also greatly benefit the entire Grumman organization."

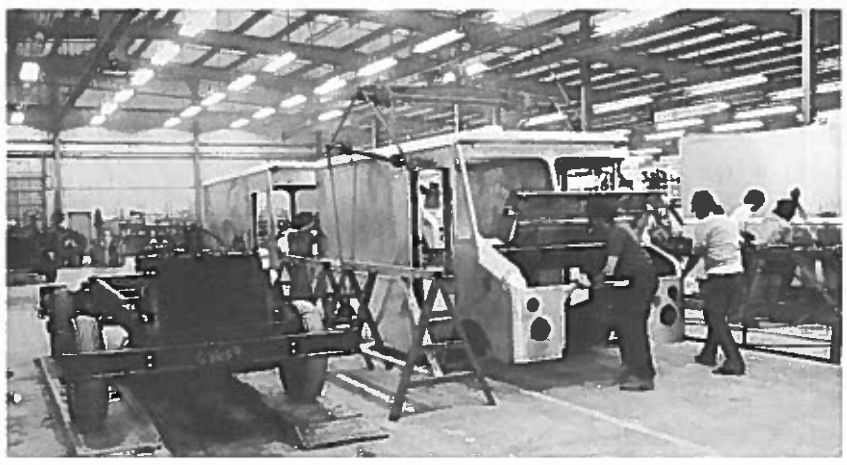
Ad supplement . . .

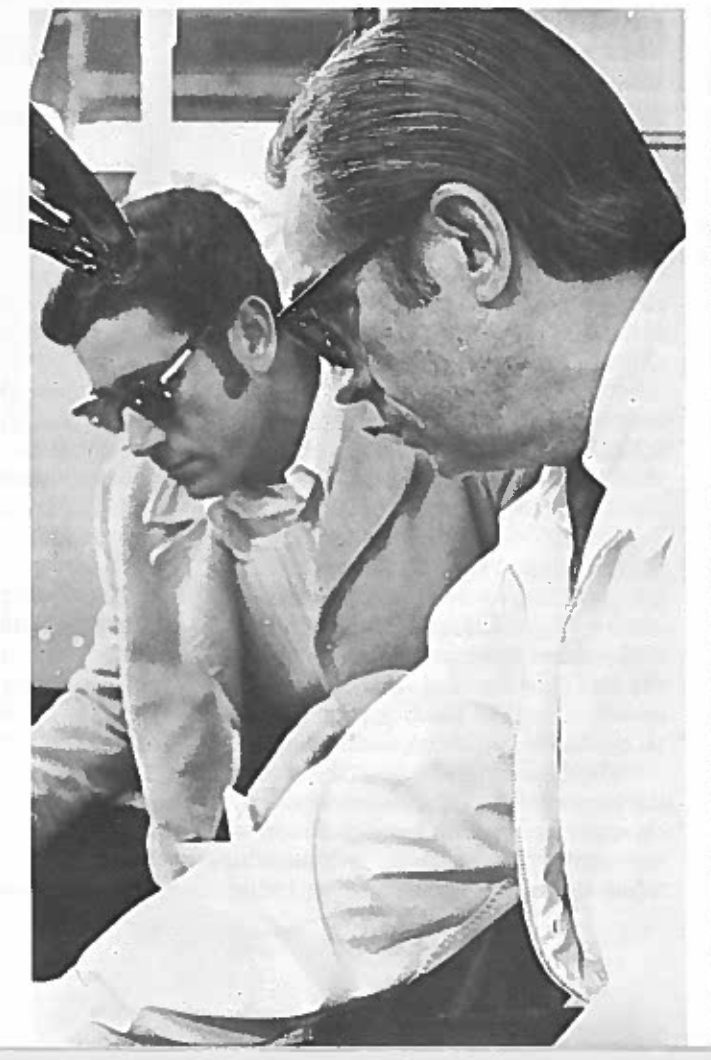
The March ad supplement is now available at all ESO offices. Pick up your copy today.

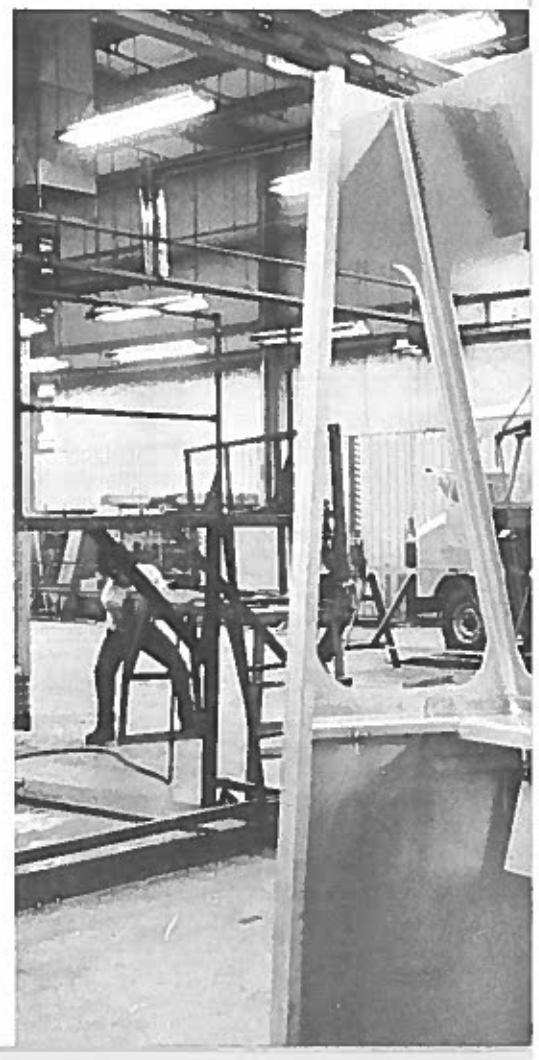
The next regular edition of Plane News will be delivered on Friday, April 12.

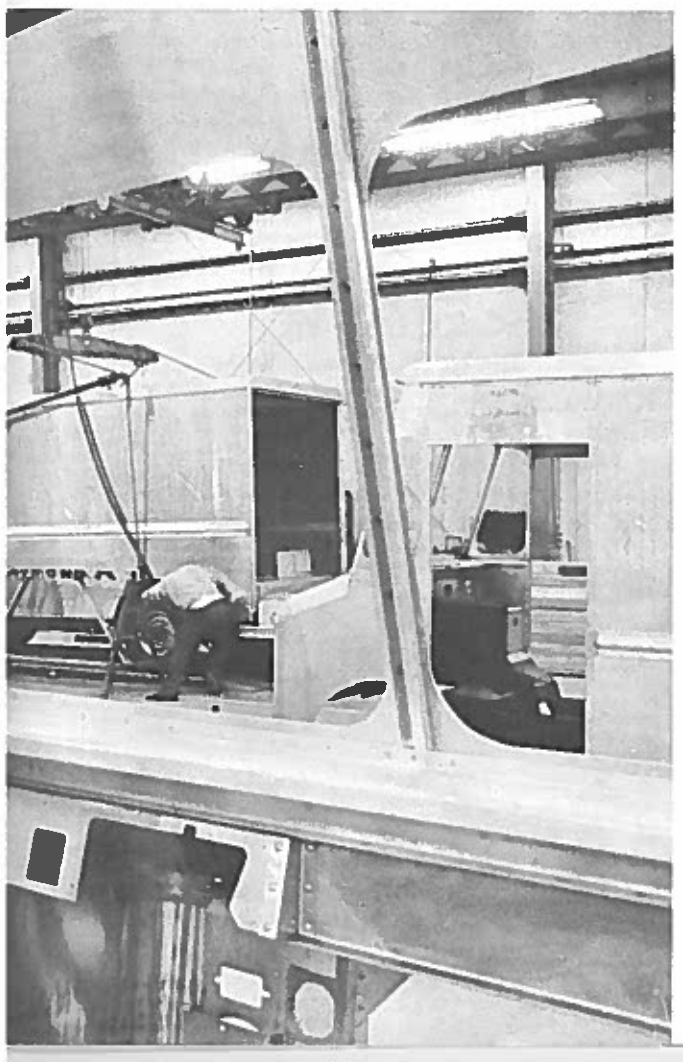
OROWEAT











"Everything grows here"

TULARE PLANT OPENS NEW WESTERN MARKETS FOR OLSON

TULARE, Calif.—The residents of central California's San Joaquin Valley say "everything grows here" referring to their broad assortment of crops which ranges from cotton to citrus fruit to vegetables. Also benefiting from the native stimulus for growth is a relative newcomer to the area: the Tulare facility of Olson Bodies Inc.—the Grumman Allied subsidiary which fabricates aluminum truck bodies—that is helping to make the name Olson a generic term among West Coast truckers.

Located about midway between San Francisco on the north and Los Angeles on the south, Tulare is little more than 125 miles from the Pacific Ocean on the west and the Nevada border on the east. Except for an occasional dense fog, the weather in the San Joaquin Valley is just about perfect. On a clear day in midwinter you can stand in the flat vineyard countryside and see the snowcaps on some of the U.S.'s tallest mountain peaks in Sequoia National Park. Also nearby are such national wonders as Kings Canyon and Yosemite National Parks, as well as Mt. Whitney, the tallest peak in the "lower 48".

The Tulare plant is one of five Olson body plants. The others are in Sherman, Tex., Sturgis, Mich., Athens, N. Y., and Mayfield, Pa., all geographically situated to tap the major U.S. automotive markets.

Since the start of production in Tulare in 1970, the plant's productivity of aluminum trucks has grown from three-to-four a day to the present eight-to-ten a day. But according to Bob Drolet, manager of the Tulare plant and vice president of Olson Bodies, that is only the beginning.

"We designed this plant for growth," says Drolet. "We have 47 acres of land here but we are using only about 12 acres right now. Our plant is built on a 100,000-square-foot concrete slab but the plant itself only utilizes 75,000 square feet. When we need more space, we will only have to remove one wall, extend the roof line and build the plant outward over the remaining part of the slab."

Why was Tulare selected as the site for this facility? "Olson has always had customers in the West," Drolet explains, "but our products had to be shipped or driven from eastern plants. We felt we needed more representation in the West to get the volume of business we felt we should have. We selected Tulare for two primary reasons: its central California location and the fact that it is a small town. All the Olson plants are located in small towns where we feel we have a better opportunity of maintaining a close family-type relationship with our employees which is especially important when the parent company is 3,000 miles away."

Like the other Olson plants, the Tulare plant is only concerned with production. Sales of the aluminum trucks are handled by J.B.E. Olson at either the Garden City, N. Y., headquarters office or at one of the 12 branch sales offices throughout the country. The truck chassis are ordered by the customers and shipped directly to the Tulare plant from the automotive manufacturer. Olson builds the aluminum body utilizing both flat sheet aluminum and preformed extruded aluminum shapes, then installs the body on the chassis.

While most of the vehicles built at the Tulare plant appear to follow the same basic design, Olson actually offers more than 300 different body variations and more than 1,100 different options. The United Parcel vehicles, for example, are built to precise specifications that include fiberglass hoods and roofs. Some trucks are constructed with wooden roll-up doors, while others have two side-opening doors. Some vehicles get custom paint and decal jobs while others retain natural aluminum exteriors covered with a clear protective coating to prevent oxidation.

There are presently 135 employees at Tulare. Drolet is originally a Long Islander from Elmhurst and a graduate of Notre Dame with a mechanical engineering degree. He has spent most of his working life in Texas, though, where he started and managed Olson's Sherman plant before moving to Tulare.

Bob Todd, production manager, was also with the Sherman plant before he joined Drolet in helping to start up the Tulare operation. Fred Prosser, plant controller, is originally from Niagara Falls, N. Y., but was employed by the Dairymen's Creamery Corporation in Tulare before he joined Olson in 1970. All the other Tulare Grummanites, like general foremen Mike Sierra and C. S. Smith, and assistant foreman Jerry Oliver, joined the company in California.

Growth for Olson these days appears inevitable and the Tulare plant is no exception. This year, Drolet says, additional production requirements may warrant bringing in as many as 40 new employees into the Grumman family.

And with that, it appears as if Olson is also keeping pace with the penchant for growth that prevails in the San Joaquin Valley.

B. H. Pettit | W. Kielbasa | L. A. Kintz | G. J. Alger | W. E. Dunn | J. T. DeMarco | A. J. Durante | R. J. Allen | J. Nordstrom

service milestones

40

Charles Lehecka Jr., Prod.-Plt.-Mgmt. (1)
Chester W. Senig, E.B. Welding (2)
Werner G. Ettlinger, Q.C. Tech. Serv. (35)

35

Eugene C. Gibney, Templates (2)
Clarence P. Cootz, Flt. Ops. (4)
Richard H. Dayton, Prod. Plt.-Mgmt. (4)
Franklin W. Otten, Prod. Support (7)

30

George M. Skurla, Vice President. GAC
Sidney A. Rouse, Prototype (1)
Arthur O. Smith, Press (2)
Torolf K. Bruo, GSE Mechanical (2)
John J. Mazza, Methods Engg. (2)
Andrew P. Millen, Forecast./Load. (2)
William F. Balchi, Out-of-Prod. Spares (4)
Millard F. Griffiths, Structural Test Staff (5)
Frederick P. Smith, B/P Warehouse (17)
Gerard G. Logue, Purchasing (30)
Gilbert R. Herdt, Property Mgt. (30)
Patrick J. Lacomb, Sub. Assy. (36)
Michael Carbuto, Ctr.-Sect. (36)
Rudolph C. Polacek, Prod. Mgmt. (36)

25

Burton H. Pettit, Major Assy (1)
William Kielbasa, Final Assy (1)
Louis A. Kintz, Drafting Tech/Cont. Staff (1)
Americo F. Tavernese, Controls (2)
Gordon J. Alger, Steel Parts Assy. (2)

J. Sirvis | L. Pastore | R. J. Wood | R. Gardner

William E. Dunn, Honeycomb Core Details (2)
Joseph T. De Marco, Inventory Cont. (2)
Angelo J. Durante, Methods Engg. (2)
Robert J. Allen, Methods Engg. (2)
John Nordstrom, Jigs Details (2)
John Sirvis, Producibility (2)
Louis Pastore, Fluid/Mech. (2)
Robert J. Wood, P/S Elect. Engg. (2)
Raphael Gardner, Q.C. Lab. (2)
Theodore L. Switzer, Honeycomb Final (3)
Bernard P. Riemer, Flt. Avionics (4)
William Fox, Out-of-Prod. Spares (4)
William J. Bartoszak, Elect. Staff (4)
Elmer J. Shakespeare, Wire Prep (5)
Roy L. Sinniger, Static Test (5)
Louis J. Caccavale, Avionics Instr. (5)
August J. Knapp, Supp. Equip. Prod. (5)
Valentino Tassone, Harness (5)
David C. Gaynor Jr., Prod. Release/Analysis (5)
Peter Pascarelli, Support (6)
Thomas G. Simken, Elect Fab. (7)
Harley G. Spinks, Production Mgmt. (7)
Bruno Jakos, Prod. Test Integ. (7)
George R. Rose Jr., Airport Ops. (7)
Edward J. Dietz, Mech. Insp. (7)
Nicholas J. Chiarantona, PPO-F-14 (15)
Rudolph H. Dempster, P/S Elect. Engg. (15)
Robert P. Bauman Jr., P/S Supply Data (15)
Dorothy Kouwenhoven, Invent. Cont. (30)
John M. Tilford Jr., Requirements Plan. (30)
Carl A. Lubin, Requirements Plan. (30)
Joseph L. Jurgens, Purchasing (30)
Frances M. Bunyan, Seller Design Equip. (30)
David M. Dudick, Tech. Ops. Support (30)
Irene A. Smith, Invoice Audit. (30)
Rita T. Schiavetta, Food Service (35)
Herman J. Schonenberg, P/S Fld. Mat/Mod. (35)
Charles W. Bogardus Jr., B/P Warehouse (37)
Herbert Herrmann, Q.C. Supplier Control (89)

20

Herbert F. Kieseweiter, Tech. Directives (1)
Gustav A. Sellgren, Specification (1)
Francis Canning, F-14A Program Mgmt. (1)
Walter A. Swanson, Propulsion Test (2)
Leroy T. Jaret, Prod. Ctl. (2)
Edward W. Becht, Die Shop (2)
Raymond Hagerman, Optical Tool/Metrology (2)
Noel B. Dowling, Maint. Admin. (2)
James V. Minicozzi, Facil. - Maint. (2)
George E. McNicholl, Convent. Mach. (3)
Edward E. Michaud, Convent. Mach. (3)
Thadeus Dec, Convent. Mach. (3)
John J. Sinnott, Convent. Mach. (3)
Peter J. Skelly Jr., Honeycomb Prefit (3)
Bernard Siegel, Mach. Oper. (3)
Robert Malin, Mach. Oper. (3)
Thomas F. Malone, Mach. Oper. (3)
Robert A. Jasinkonis, Maint. (3)
Daniel J. Anelli, GSE Mechanical (5)
Harold M. Moss, Ops. Anal. (5)
Herman H. Bement, Bus. Devel. (5)
David L. Walsh, Bus. Devel. (5)
Vincent P. Riggs, Instr. Pan. Cont. (6)
Vincent Walsh, Facil.-Maint. (6)
Peter S. Mezzapelle, Paint (6)
Richard Wink, Vehicle Prod. Supp. (6)
Edward J. Mantell Jr., Engg. (7)
Jarvis A. Collins, Resources (7)
John Umstetter, A/C Programs (7)
John D. Whitehead, Data Ops. (7)
G. E. Garner, Maint. Rearrang. (12)
Henry G. Fricke, Maint. Rearrang. (12)
Frank Kojick, Elements/Mat. Test (12)
Orlando Vescio, Mechanical (14)
Bernard Sloan, P/S Supply Data (15)
William Shachmut, Displays Instd. (15)
Daniel Fass, Release/Control (15)
Henry W. Lada, Trans. (20)
Dorothy Martin, Repro. Servs. (25)
Neal A. De Luca, Struct. Design (25)
Arthur Mauriello, Major Assy (27)
John J. Selva Jr., Pricing/Res. (30)
Ernest A. Andrews, Facil. - Maint. (34)
Violet M. Pratesi, Proj. Serv. (34)
Herman A. Zwick Jr., Prop. Anal (35)
Harry Ellerbush Jr., Q.C. Supplier Cont. (35)
Robert C. Hildebrandt, Machine Shop (58)
Charles A. Farrell, GDS

15

Victor L. Carver, GDS
Herbert W. Timmerman, GDS
Joseph W. Warren, Final Assembly (1)
Claudio J. Bosque, Final Assembly (1)
Albert Umbach, Elect. Fab. (1)
Salvatore M. Palumbo, Elect. Fab. (1)
Floyd A. Camp, Environ. Control Des. (1)

T. L. Switzer | B. P. Riemer | W. Fox | W. J. Bartoszak | E. J. Shakespeare | R. L. Sinniger | L. J. Caccavale | V. Tassone | D. C. Gaynor Jr.

P. Pascarelli | T. G. Simken | H. G. Spinks | B. Jakos | G. R. Rose Jr. | E. J. Dietz | N. J. Chiarantona | R. H. Dempster | R. P. Bauman Jr.

D. Kouwenhoven | J. M. Tilford Jr. | C. A. Lubin | J. L. Jurgens | F. M. Bunyan | D. M. Dudick | R. T. Schiavetta | C. W. Bogardus Jr. | H. Herrmann

Frederick F. Schreiber, Fluid Power (1)
Timothy F. Casey, Systems Design (1)
Trumbull D. Davis, Tech. Directives (1)
Donald A. Burk, P/S A/C Sys. Serv. (1)
Robert A. Carlson, Prog. Plan Cont. Budget (1)
James E. Daly, Prog. Plan Cont. Budget (1)
Salvatore Guarnotta, GSE Mechanical (2)
Adolf F. Borra, Machine Shop (2)
Robert C. Beckmann, Project Proposals (2)
Walter J. Steck, Prod. MFC.-Budget (2)
Bart J. Verga, Die Shop (2)
Ralph Porcello, Form Block (2)
Louis Amoroso, Jigs Details (2)
John W. Schauer, Jigs Details (2)
Paul W. Sustman, Jigs Details (2)
Albert F. Bainton Jr., Sub-Assy Control (2)
Clarence A. Lottermoser, Tool Assy. (2)
William A. Schilk Jr., Producibility (2)
Frank Mirabella, Drafting (2)
William A. Botticello, Drafting (2)
Anthony J. Nieckarz, Food Serv. Acct. (2)
Aurelio Giuliani, Alodine (3)
Philip E. Gervasio Jr., Cadmium Plate (3)
Felx M. Garlasco, Mach. Oper. (3)
Isadore R. Fried, Mach. Oper. (3)
Fredinando Savio Jr., Tool Assy. (3)
Anthony J. Barile, Maint. Admin. (3)
Albert Freedman, Food Services(3)
Arthur Cooke, Vehicle Prod. Engg. (3)
Frederic L. Rotzinger, Q.C. Lab. (3)
Pierre C. Jelis Jr., Flt. Oper. (4)
Salvatore J. Attard, P/S Mech. Engg. (4)
Giacomo J. Sanfilippo, P/S Tech. Services (4)
George F. Milione Jr., Static Test (5)
John P. Barry, Static Test (5)
William Lanigan, Join/Mid Mod Install. (5)
John S. Shlonsky, Prod. Ctl. (5)
George F. Faeth, Avionics Mgmt. (5)
Robert E. Vincent, Purchasing (5)
Harold A. Ford, P/S Video Engg. (5)
Jerry L. McFarland, Drop Test/Elements (5)
David H. Penrose, Facilities/Support (5)
Wilfred B. Kleisler, Mechanical (5)
John E. Palumberi Jr., Ops. Anal. (5)
Peter A. Haring, Sys. Tech. Staff (5)
Frank E. Mapes Jr., Instr. Test (6)
Augustus I. Dean Jr., Intr. Test (6)
John B. Marvin, Instr. Test (6)
Andrew J. Bonavita, Instr. Plan./Cont. (6)
Edward H. Wittshack, Maint. Ind. Cont. (6)
Kendall A. Sawyer Jr., Repro. Servs. (6)
Elmer O. Baumgart, Training/Devel. (6)
Stanley Durdski, Elect Install. (6)
Robert C. Steneck, Structures (6)
Emi D. Urciuoli, Assy. Methods/Plan. (6)
William F. Wilber, Machine Shop (6)
Robert A. Sullivan, Prod. Test Elect. (6)
Bruno G. Caputo, Vehicle Tech. (6)
Theodore F. Hammen Jr., Calv. Ops. Staff (6)
Rosario A. Baracco, Flight Sciences (7)
Hans D. Kampmann, Flight Data (7)
Joseph F. Barszczewski, Flight Data (7)
Russell J. Gumaer, Mech. Insp. (7)
Arthur W. Smith, Adv. Matl./Process Dev. (12)
Henry W. Baker Sr., Meas. Stand. Staff (12)
Phillip M. Parsons, Maint./Facil. (14)
Morton Kommel, Software Devel. (14)
Howard S. Saltzman, Lab Mgmt./Tech. (14)
Donald P. Maresca, Program Mgmt. (15)
Salvatore C. Capitano, P/S Resources Cont. (15)
Robert E. Fowler, P/S Comm/Exp. Center Sys. (15)
Gordon Crooks, Alg./Cr/Arm Pyrotech Sys. (15)
Henry C. Sutton Jr., Thermodynamic Sys. (15)
Arnold Seidon, Elect Counter-Measure (15)
Clifford C. Seaman, Trans. (20)
Wesley Anderson, Maint.1Facil. (25)
Walter M. Pridham, Repro. Servs. (25)
James H. Bailey, Equip. Lines (25)
Ferdinand Rosenberg, Drafting (25)
Frank W. Donroe, Proj. Eng. (25)
Walter F. Gleich Jr., Corporate Sys. (25)
Joseph Rey, Fiberglass (27)
Anthony Alaimo, Major Assy. (27)
Joseph Auricchio, Ctr.-Sect. (27)
Eugene R. Galatro, Ctr.-Sect. (27)
Edward J. O. Rourke, Prod. Plt. Staff (27)
Richard W. Tiedemann, Special Tools (27)
Margaret A. Meehan, Insurance (28)
Alfred E. Berka, Security (28)
William H. Stanton, Mech-Eng. (30)
James W. Currie, Distrib. Serv. (30)
Francis Perugini, General Acct. (30)
Donald H. Wieman, Ppo-ES6 (34)
Joseph D. Cavalluzzo, P/S Tech. Servs. (34)
George F. Turk, P/S Commod. Cont. (34)
Daniel S. Sproul, Equip. Lines (34)
Robert A. Germano, Pyrotech Sys. (34)
Charles J. Lewandowski, Drafting (34)
Augustus S. Sclafani, Adv. A/C Sys. (34)
Friedrich J. Spitzer, P/S Technical Writing (34)
Richard W. Lamont, P/S Technical Writing (34)
Gerald W. Rowles Jr., P/S Production (34)
Milfred L. Middleton, Info./Rec. Serv. (35)
Dino George. Struct. Methods (35)
Joseph A. Smith, Sys. Integ. (35)
Roy P. Reisch, Systems Sciences (35)
George A. Patterson, Drafting (35)
Michael J. Galgano, Section Admin. (35)
Alexander J. Subatch, Proj. Plan. (35)
Arthur V. Norelius, Q.C. Supplier Cont. (35)
Robert G. Brielmann, Q.C. Insp. Mgmt. (35)
Salvatore Costa, Upholstery (36)
Gerald P. Kammerer, Controls (36)
Donald L. Janson, Training/Devel. (39)
John T. O. Flaherty, P/S Training (39)
John A. Good, Prop. Anal. (75)
Ronald K. Hevner, Tech. Ops. (77)
Donald J. Bryan, Tech. Ops. (77)
John V. Fraccalvieri, P/S Training (80)

OBITUARIES

Plane News has received word that death has come to the Grumman personnel listed below. We extend sincere sympathy to relatives and friends.

WILBUR A. GERARD of Transportation, Plant 20, died March 2 at the age of 60. He had been with Grumman Aerospace since 1941 and lived at 147 Melville Rd. So., Huntington Station.

PATRICK O'BEIRNE of Plant Stores, Plant 1, died March 7 at the age of 61. He had been with Grumman Aerospace over 18 years and lived at 8 Alden Lane, Huntington.

JAMES WEEKS of Engraving, Plant 3, died March 11 at the age of 47. He had been with the company since 1952 and lived at 245 Garden St., Westbury.

Calling for Field Service reps!

Personal Development is now looking for employees who have a background and knowledge of avionics to become Field Service Reps. If you are one of those who works independently as well as you do with others, or have an interest in teaching and writing, then this may be for you. Can you solve complex technical problems? Do you want more responsibility, challenge and corresponding rewards? If the answer is yes, complete the accompanying form and send it to Personal Development, Plant 28. For further information, contact Charles Fuschillo, Ext. 1523.

Field Service Representative

Name .....

Home address .....

Plant ..... Department ..... Permanent number .....

Present position ..... Telephone ext. .....

Please return to
Personal Development, Plant 28

Business tips

Homeowners who are planning to hook up to the newly-available sewer system in southwestern Nassau are urged by the L. I. Better Business Bureau to check the reputation of the plumbing firm they plan to do business with before signing any agreement.

"Most Long Island plumbing firms are honest, but before the homeowner forks over $400 or $500 and has his property torn up in order to tie in to the sewer system, he should be sure he's dealing with a reliable concern," says Albert Gottesman, acting executive director of the Bureau. Gottesman said call the Bureau at 334-7662 for this information.

Walther uncorks 257 game during 704 record series

Getting tired of reading about bowling? When are the keglers going to call it quits? Didn't anyone tell them that spring training has started . . . that people are bringing their golf clubs out of storage . . . that everyone is taking to the tennis courts? Alley enthusiasts are still r o l l i n g away, though, and will be as late as May. Grumman bowlers are not about to call it quits—not while there are still records to break.

In the Aerospace league, H a r r y Walther e r a s e d former milestones with a pin-crushing 226-221-257-704 series. Besides breaking the high series mark, he also rolled a high season game of 257. O t h e r action: Oris Guido, 214-224-603 and 235-214-639; John Neville, 215-572.

Big news on the Syosset Mixed alleys was that Roseann Maglione bowled her first "200" recently, knocking down a 209. Other action in the Syosset lanes: Eric Bunzel, 224-210-586; Ed Miron, 200-200-553. Suzzanne Gerlich recently bowled 217, a new high game for her career, too.

In the Masters league: Dick Spalding, 222-814; Dick DiDonato, 253-225-837; John Betterino, 255-832 for the four-series play. In the Outpost league, where the Vanguards are leading, Bud Earhart, 202-574; Jerry Casale, 200-560. Highlights of the Hawkeye Mixed: Rita Goshefski, 180-505; Arleen Schwemmer, 196-487; W a l t Stehlin, 201-212-603; Lonnie Bresnick, 212-224-618; F r a n Zuk, 178; Tom Klobukowski, 202-580.

Highlights of the Black league: Ted Dija, 200-203-206-609; Phil Fey, 202-203-596; John Barnes 213-588; Walt Stehlin, 218-591; Al Pucci, 202-588; Vin Iannacone, 206-580; Hank Lada, 215-579. Action on the Woodbury Mixed alleys: Shirley Schiavetta, 196; Don Eivers, 220-572; Tom Szwejkowski, 207-558; J o h n Kirk, 228-602; Dotty Eivers, 207-556; Carol Mayer, 203-526.

In the Classified league: Bob Dudonis, 210-220-617; Mort Husted, 221-596; Art Mahlstedt, 222-585. On the Patchogue Mixed alleys: Joan Burgess, 221-551; J u n e Erickson, 191-508; Gene Burgess, 220-526; Dave Struller, 196-558.

Harry Walther

Highlights in the Century Mixed league: Jeanne Kelly, 182-466; Bill Kallansrude, 191-546; P a t Van de Wetering, 184-505; M i k e Viafora, 203-557. In the Red league: Herb Pirkl, 222-646; Dick Bloomer, 206-202-600; Charlie O'Connor, 212-581; Tom Hansen, 242-569; Milt Guttenberger, 192-563.

Pass the buck to GAA

If you haven't bought your 1974 GAA membership d r i v e ticket, you still have five more working days to be a sport. For just one dollar, you're not only joining with thousands of others who over the years have been supporting the Grumman Athletic Association, but you'll also be in the running for one of 15 $100 U.S. Savings Bonds or one of 50 sets of Grumman glasses that are up for grabs at the conclusion of the drive.

One of the few items that hasn't been hit by inflation for over 30 years, a GAA membership card is a big bargain. Besides providing material and financial support to the various intramural leagues, ranging from quoits to bowling, the GAA also arranges travel tours around the world, assists over 20 company clubs, and sponsors such shows as the hobby and art exhibits.

The GAA drive ends March 31. So if you haven't joined the crowd, you can still buy a membership ticket from your supervisor. Mike Cherry, who's heading the drive again this year, says to make sure to return the stub attached to your ticket so that your name can be included in the drawing on April 5.

Be a sport and give a buck. You'll be better off in more ways than one.

Pin squad still living in 1st place residence

After three rounds of the 33rd Anual L.I. Industrial Invitational Bowling Tournament sponsored by the Grumman Athletic Association, the men's varsity is still residing in first place with one round to go. And what a round it's going to be!

The Grumman keglers hold a slim lead over AMF, last year's champions, 8363-8321—that's only 42 pins. And right behind the top leaders are AIL, 8249; Pan Am, 8168; and LILCO, 8084.

Richie Neste was top bowler in the third round with high game and high series, 244-211-212-667. Contributing to the Grumman team effort were Tom O'Connor, 207-578; Cliff Hartnack, 221-555; Ed Hilbert, 188-551; and Frank Tucholski, 458.

In the incentive competition, Hazeltine, a newcomer to the tourney this year, is in first place with 215 pins over its team average with second place Grumman rolling 148 pins over its average.

Early spring training call for softball leagues, varsity

With daylight savings time and with warmer spring weather just around the corner, it's time to be thinking about diamonds—softball diamonds, that is.

It's an open field for women interested in trying out for the women's varsity softball team, says Chet Baumgartner of GAA. Tryouts for the female varsity are set for every Monday and Wednesday in the month of April beginning April 1 at 5 p.m. at the Plant 2 softball field. Contact Ray Manzo on Ext. 1641 or 86218 if you're interested.

Tryouts for the men's varsity softball squad will be held every Tuesday and Thursday at 5 p.m. beginning April 9 at Plant 3. All positions are open. Contact Jack Keane on Ext. 1359 or 87220.

An organizational meeting for afterhours softball leagues will be held April 22 at 5 p.m. in the GAA office Plant 30. Each team should have a representative at the meeting, says Chet, and any players not attached to a team who wish to play should contact him on Ext. 2133.

Those who spend their lunch hours playing intra-plant softball should send a team representative to one of the following meetings:

PLANT 1 - M o n d a y, April 15, 12:15 p.m., R e c e i v i n g area, Lou Trapani, Ext. 2548.

PLANT 2 - Tuesday, A p r i l 16: 12:15 p.m., conference rm. by mgr. office, Frank D'Elio, Ext. 84544.

PLANT 3 - Wednesday, April 17, 12:15 p.m., conference rm., Grant Thompson, Ext. 9419.

PLANTS 6, 7, 8 - Thursday, April 18, 11:50 a.m., conference rm., Plant 6, Stan Misiewicz, Ext. 215 or Joe Mallins, Ext. 345.

PLANT 27 - Monday, A p r i l 22, 10:00 a.m., cafeteria, J o e Frisenda, Ext. 86681.

NITE OWL - Plants 1, 2, 3, 4, 5 will meet Thursday, April 18 at 9 p.m. in the Plant 2 conference room. Contact Walter Lampkin on Ext. 84868 for more information.

GRUMMAN AEROSPACE CORPORATION
BETHPAGE, NEW YORK 11714

BULK RATE
THIRD CLASS
PERMIT NO. 264
U.S. POSTAGE PAID
BETHPAGE, NEW YORK